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## AMENDMENTS TO THE CLAIMS:

The following listing of claims, in which claims 1, 6, 9 and 15 are amended, replaces all prior versions, and listings, of claims in the application:

1. (Currently amended) A method of preparing a medium with contrast enhancement agents therein, the method comprising the step of measuring a property of the contrast enhancement agents during preparation of the medium; ~~and to assist in~~ controlling at least one parameter of the preparation during preparation of the medium at least in part based upon the measured property.

2. (Original) The method of Claim 1, further comprising the step of pressurizing the medium.

3. (Previously presented) The method of Claim 1, further comprising the step of producing an image of a patient.

4. (Original) The method of Claim 1, further comprising the step of agitating the medium.

5. (Original) The method of Claim 1 wherein the property of the contrast enhancement agents comprises at least one of concentration and size distribution.

6. (Currently amended) A system for preparing a medium with contrast enhancement agents therein, the system comprising:

a container including the medium;

an agitation mechanism operably associated with the container for agitating the medium; and

a sensor adapted to measure a property of the contrast enhancement agents in the container ~~to assist in controlling at least one parameter during preparation of the medium;~~

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and a controller operable to control a parameter of the preparation of the medium during preparation of the medium at least in part in on the basis of the measured property.

7. (Original) The system of Claim 6, further comprising a communication unit in communication with the sensor, the communication unit operable to communicate data corresponding to the measured property of the contrast enhancement agents.

8. (Original) The system of Claim 7, further comprising a processing unit in communication with the communication unit, the processing unit operable to transmit one or more control signals based at least in part on the measured property data.

9. (Currently Amended) The system of Claim 8, ~~further comprising a~~ wherein the controller is in communication with the processing unit, the controller operable to control the agitation mechanism at least in part in response to the one or more control signals from the processing unit.

10. (Original) The system of Claim 6 wherein the property of the contrast enhancement agents comprises at least one of concentration and size distribution.

11. (Original) The system of Claim 7, further comprising a user interface in communication with the communication unit to provide an indication functionally related to the measured property data to an operator.

12. (Previously presented) A method of delivering a medium with contrast enhancement agents therein into a patient, the method comprising:

measuring a property of the contrast enhancement agents; and

using the measure property to control at least one of the delivery of the contrast enhancement agents or an imaging procedure carried out in conjunction with delivery of the contrast enhancement agents by selective destruction of contrast enhancement agents.

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13. (Original) The method of Claim 12 wherein the selective destruction adjusts the concentration of the contrast enhancement agents.

14. (Original) The method of Claim 12 wherein the selective destruction adjusts the size distribution of the contrast enhancement agents.

15. (Original) A method of delivering a medium with contrast enhancement agents therein to a patient during an injection procedure, the method comprising:

measuring a property of the contrast enhancement agents during delivery to the patient during the injection procedure; and

selectively destroying one or more of the contrast enhancement agents to control the measured property.

16. (Original) The method of Claim 15 wherein the measured property is concentration.

17. (Original) The method of Claim 16 wherein the one or more contrast enhancement agents are destroyed to control concentration.

18. (Original) The method of Claim 15 wherein the measured property is size distribution.

19. (Original) The method of Claim 18 wherein the one or more contrast enhancement agents are destroyed to control size distribution of the agents.

20. (Original) A fluid delivery system comprising:  
a pressurizing device for pressurizing a fluid medium comprising a suspension of two materials;

a fluid path connecting the pressurizing device to a patient;

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a sensor operably associated with at least one of the pressurizing device or the fluid path, the sensor operable to measure a property of the fluid medium;

a communication unit in communication with the sensor, the communication unit operable to communicate data corresponding to the measured property of the fluid medium;

a processing unit in communication with the communication unit, the processing unit operable to transmit one or more control signals based at least in part on the measured property data; and

a controller in communication with the processing unit, the controller operable to control the pressurizing device at least in part in response to the one or more control signals from the processing unit.

21. (Original) The system of Claim 20 wherein at least one of the two materials comprises contrast enhancement agents.